CLAIMS

Amend the claims as follows.

1. (Currently Amended) A computer-implemented method ~~for reducing image noise in a scanned image~~, comprising:

scanning an image with a scanner to obtain a full color level of a color element of a pixel of the scanned image;

decreasing the full color level of the color element by reducing a number of bits of the [[a]] full color level of the color element to form a reduced color level image, wherein the number of bits reduced from the full color level corresponds to an image noise level associated with scanning the image;

composing a pattern comprising the number of bits reduced from the full color level of the color element, wherein the pattern has ~~having~~ less color level of the color element than the full color level; and

restoring the full color level of the color element of the pixel by combining the reduced color level image with the pattern.

2. (Previously Presented) The method of claim 1, wherein the reduced color level image and the pattern are combined using a bit-enhanced method.

3. (Presently Presented) The method of claim 1, wherein combining the reduced color level image with the pattern restores the pixel to include a same number of bits of the color element as before the full color level was decreased.

4. (Previously Presented) The method of claim 1, wherein the pattern comprises a halftone pattern.

5. (Cancelled)

6. (Currently Amended) A ~~computer-implemented~~ method ~~for reducing noise in an image~~, comprising:

scanning an ~~the~~ image with a scanner to obtain a gray scale of one or more pixels of the image;

reducing the gray scale of the one or more pixels of the image by reducing a number of bits of gray scale image data from each of the one or more pixels, wherein the number of bits of gray scale image data reduced from the one or more pixels corresponds to an image noise level associated with scanning the image; and

restoring the gray scale of the one or more pixels using a halftone pattern comprising a matrix, wherein a number of rows and a number of columns of the matrix correspond to the number of bits of gray scale image data reduced ~~subtracted~~ from the one or more pixels.

7. (Previously Presented) The method of claim 1, wherein the color level of the pattern depends on the number of bits reduced from the full color level.

8. (Currently Amended) A ~~computer-implemented~~ method ~~for reducing noise in an image~~, comprising:

scanning an ~~the~~ image with a scanner to obtain a full image level of a color element of a pixel of the image;

reducing the full image level of the color element by decreasing a number of bits of the color element according to an ~~the~~ image noise associated with scanning the image;

composing a halftone pattern comprising a reduced image level of the color element corresponding to the decreased number of bits; and

restoring the full ~~an~~ image level of the color element of the pixel using the halftone pattern.

9. (Currently Amended) The method of claim 8, wherein ~~a number of bits of~~ the full image level of the color element in the restored image level comprises a ~~is the~~ same ~~as a~~ number of bits of the color element obtained by scanning the image ~~in the full image level~~.

10. (Previously Presented) The method of claim 8, wherein the halftone pattern comprises a matrix having a number of rows equal to the decreased number of bits.

11. (Previously Presented) The method of claim 10, wherein the matrix further comprises a number of columns equal to the decreased number of bits.

12. (Currently Amended) The method of claim 8, further comprising displaying the image including the restored image level on a computer monitor.

13. (Presently Presented) The method of claim 8, further comprising filling out missing codes of the pixel using a bit-enhanced method.

14–17. (Cancelled)

18. (Presently Presented) An apparatus for reducing noise in an image, comprising:

means for reducing a full image level of a color element of one or more pixels in the image by decreasing a number of bits of the color element from the one or more pixels, wherein the number of bits corresponds approximately to the image noise;

means for composing a halftone pattern comprising a reduced image level of the color element, wherein the reduced image level corresponds to the decreased number of bits; and

means for recombining an image level of the one or more pixels in the image using the halftone pattern.

19. (Currently Amended) The apparatus of claim 18, wherein ~~a number of bits of~~ the color element in the recombined image level comprises a ~~is the~~ same ~~as a~~ number of bits of the color element as in the full image level.

20. (Previously Presented) The apparatus of claim 18, wherein the halftone pattern comprises a matrix having a number of rows and columns equal to the decreased number of bits.

21. (Currently Amended) The apparatus of claim 18, wherein the image level is recombined with the halftone pattern to restore ~~recombining the image level restores~~ the color element of the one or more pixels to ~~include a same number of bits of the color element as before~~ the full image level ~~was reduced~~.

22. (Currently Amended) The apparatus of claim 18, wherein the number of bits decreased from the full image level approximates ~~is set to approximate~~ a level of the [[an]] image noise ~~level~~.

23. (Presently Presented) The apparatus of claim 18, wherein the reduced image level of the pattern corresponds with the number of bits reduced from the full image level.

24. (Previously Presented) The apparatus of claim 18, wherein one or more of the full image level, the reduced image level, and the image level comprise a color level.

25. (Previously Presented) The apparatus of claim 18, wherein one or more of the full image level, the reduced image level, and the image level comprise a gray level.

26. (Presently Presented) The method of claim 1, wherein the scanned image comprises three color elements, and wherein the pixel comprises at least one of the three color elements.

27. (Presently Presented) The method of claim 26, wherein the three color elements comprise a red color element, a blue color element, and a green color element.

28. (Previously Presented) The method of claim 9, wherein the full image level of the color element and the restored image level of the color element comprises a gray level.

29. (Presently Presented) The method of claim 28, wherein the full image level is reduced by decreasing a number of bits of the gray level.

30. (New) The method of claim 8, wherein the number of bits of the color element decreased from the full image level corresponds to a level of the image noise.